

PENGARUH p-HIDROKSIBENZOAT DAN PARAQUAT TERHADAP PERTUMBUHAN TANAMAN KEDELAI PADA BAHAN GAMBUT PANGKOEK KALIMANTAN TENGAH

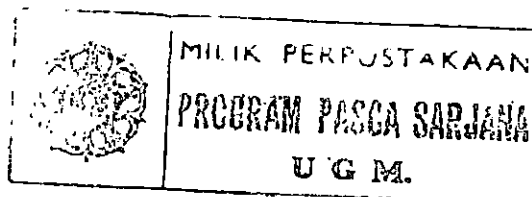
INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian asam p-hidroksibenzoat dan paraquat terhadap pertumbuhan tanaman kedelai yang ditanam pada gambut fibrik dan saprik. Penelitian dilaksanakan di rumah kaca Kuningan dan Laboratorium Tanah Umum, Fakultas Pertanian Universitas Gadjah Mada Yogyakarta.

Penelitian pot disusun dalam Rancangan Acak Lengkap (RAL) 3 faktor. Faktor pertama adalah jenis bahan gambut, terdiri dari fibrik dan saprik. Faktor kedua adalah konsentrasi paraquat, terdiri dari dua level yaitu: 0 dan 20 ppm. Faktor ketiga adalah dosis asam p-hidroksibenzoat, terdiri dari: 0, 20, 40 dan 60 ppm. Tanaman dipanen saat berumur 80 hari setelah tanam. Data dianalisis dengan analisis ragam dan dilanjutkan dengan Uji Jarak Berganda Duncan.

Hasil penelitian menunjukkan bahwa asam p-hidroksibenzoat tidak mempengaruhi pertumbuhan vegetatif tanaman tampak dari tidak ada beda nyata terhadap parameter tinggi tanaman, berat kering trubus dan akar, tetapi berpengaruh negatif terhadap pertumbuhan generatif tanaman yang tampak pada penurunan jumlah polong isi dan penurunan lebih besar di saprik daripada fibrik. Paraquat berpengaruh negatif terhadap pertumbuhan vegetatif dan generatif tanaman yang tampak pada parameter tinggi tanaman, berat kering trubus, berat kering akar, jumlah polong isi dan berat biji. Adanya asam p-hidroksibenzoat dan pemberian paraquat semakin menurunkan hasil tanaman kedelai, tetapi tidak mempengaruhi pertumbuhan vegetatif tanaman.

Kata kunci: asam p-hidroksibenzoat, paraquat dan kedelai.



THE EFFECT OF p-HYDROXYBENZOIC ACID AND PARAQUAT ON THE SOYBEAN GROWTH IN PANGKOH PEAT SOIL CENTRAL KALIMANTAN

ABSTRACT

The objective of this research was to investigate the effect of p-hydroxybenzoic acid and paraquat on the growth of soybean which planted in fibric and sapric peat soil. The research was done at Kuningan green house and General Soil Science Laboratory, Agricultural Faculty of Gadjah Mada University, Yogyakarta.

The pot experiment was designed in Complete Randomized Design (CRD) with 3 factors. The first factor was peat material, consist of fibric and sapric. The second factor was paraquat concentration, consist of two levels: 0 ppm and 20 ppm. The third factor was dose of p-hidroxybenzoic acid, consist of four levels: 0, 20, 40 and 60 ppm. The plant were harvested of 80 days. Data analyzed with analysis of variance, followed by a Duncan's Multiple Range Test.

The result of the research showed that p-hydroxybenzoic acid did not influence the vegetative growth of the plant which showed no significant difference from parameters the heigth of the plant, shoot and root dry weight, but it had negative effect on the generative growth of the plant which showed from the decreased of peas content, in which the decrease in sapric was lower than in fibric. Paraquat had negative effect on the vegetative and generative growth of plant, which showed from the height of the plant, shoots dry weight, root dry weight, peas content and grain weight. The existence of p-hydroxybenzoic acid in peat and the used of paraquat decreased yield of soybean, but did not have influence on the vegetative growth of plant.

Key words: p-hydroxybenzoic acid, paraquat and soybean.

